



# EPA's **Landfill Methane Outreach Program** 9th Annual LMOP Conference and Project Expo

**"New Opportunities for Small Landfills"**

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## Municipally Owned Landfills: The Next Big Thing in LFG Project Development?

- What are muni-owned landfills?
- Statistics
  - Majority of remaining candidate sites are muni-owned
  - Majority of those sites are relatively small
- Conclusion
  - Largest group of resource owners are smallest group of project developers

## Purpose of Presentation

- Review fundamentals of muni project development,
  - And
- Suggestions

## Challenges to Municipal LFG Project Development

- Incentives to act
  - “The cost of doing nothing is cheap”
    - if already in compliance (with or without a flare), there may be little perceived incentive to develop an energy project
- Procurement Rules
  - Query: is an RFP for private development of a landfill a procurement?
  - Cumbersome/time consuming

## Beyond the comfort zone . . . Unfamiliar territory

- Interconnection agreements with local serving utility
- Power sales agreement
- Scheduling energy flows
- BACT analysis for air permits
- Financial analysis
- ???

## Beyond the comfort zone . . . cont. Predicting likelihood of success

- Construction costs?
- O&M costs?
- Revenues?
- Financing?
- Budget impact?

## How to Overcome the Challenges

- But first . . . WHY EVEN DO IT????
  - Environment – utilize a resource
  - Employment – local economic development impact
  - \$\$\$\$\$
    - Revenues from projects reduce upward pressure on local taxes
    - Revenues from projects can be used to improve quality of waste management services provided
    - Even a small project can yield earnings (income less expenses) of > \$250,000 per year

## How to Overcome the Challenges – cont.

- Initial study with a financial proforma performed in-house or, alternatively by consultant – should be relatively inexpensive
- If initial study looks positive,
  - RFP for major construction/equipment
    - Turnkey
    - Major component purchase with installation by others
    - Lease v. purchase
    - O&M
      - » by equipment supplier
      - » municipal employee
      - » hybrid agreement
  - Draft term sheet for power sales agreement
  - Interconnection study

## How to Overcome the Challenges – continued some more . . .

- Check actual proposed costs with proforma estimates and make a final GO/NO GO decision
- Financing/Capitalization
  - budget
  - bond issuance
    - EPA 2005 provides incentives
    - Clean renewable energy bonds
    - REPI credits
    - Grants
    - Loan guarantees
    - Traditional bond issuance approaches
  - lease / own equipment?

## Conclusion

- The majority of remaining candidate sites in the LMOP database are landfills owned by municipalities
- To date, municipal landfills have allowed private companies to develop project with modest royalty payments
- With minimal assistance, municipal landfills have the ability to develop projects on their own